In the Claims

(currently amended) A method for background replacement in image capture

systems, the method comprising:

recording a background of an image with no foreground object with an image capture device, wherein the background is used as an input to a probability function;

using said image capture device to capture an input image having a foreground object; classifying each pixel in said input image as a foreground pixel or a background pixel by applying calculating the probability function for each pixel in to the input image resulting in a classification;

refining said classification to ensure proper classification;

replacing said background pixels with pixels from a different background, wherein said replacing is performed with feathering; and

producing an output image comprised of said foreground pixels and said pixels from a different background.

- 2. (original) The method as claimed in claim 1 where the refining step is performed in the normalized RGB chromatic color space.
- 3. (original) The method as claimed in claim 1 wherein-the refining step is performed in YCbCr color space.
- 4. (previously presented) The method as claimed in claim 1 wherein said input image comprises one frame of video data.
- 5. (previously presented) The method as claimed in claim 1 wherein said input image comprises more than one frame of video data.
- 6. (previously presented) The method as claimed in claim 1 wherein said input image comprises a still image.
- 7. (previously presented) The method as claimed in claim 1, wherein said refining is performed with anisotropic diffusion.

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8. (previously presented) The method as claimed in claim 1, wherein said refining is performed with morphological filtering.



image.

- 9. (original) The method as claimed in claim 1, wherein said output image is a video
- 10. (original) The method as claimed in claim 1, wherein said output image is a still image.